

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 75937

November-01-11 4:16:52 PM

75937

Page 2

Item ID: D3391-021

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Fwd Tube Assembly

Stop

NS2

Start Date: 01/11/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

130

130

HAAS 1

HAAS CNC vertical machine #1

140

140

QC

Quality Control

150

150

Mill Conv

Conventional Milling Machine

Set Up/
Run Hours

0.00

OK/J

Tool ID

0.00

11/11/18

Tool #

1

Plan
Code

I

Accept
Qty

1

Reject
Qty

0

Reject
Number

1

Insp.
Stamp

0.00

OK/FSC

0.00

11/11/18

1

6

0.00

0.00

OK/ML 11/11/18

1

0

1

Stamp

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 75937

75937

November-01-11 4:16:52 PM

Page 3

Item ID: D3391-021

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Fwd Tube Assembly

Stop

NS2

Start Date: 01/11/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC2- Inspect parts off machine FAI/FAIB

0.00

160

QC

Quality Control

SL/ak 11-11-22

1 4

170

QC8- Inspect parts - second check

0.00

170

QC

Quality Control

SL 11-11-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 75937

November 01-11 4:16:52 PM

75937

Page 4

Item ID: D3391-021

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Fwd Tube Assembly

Stop

NS2

Start Date: 01/11/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

180

Skidtubes

Skidtubes

Memo

0.00

1-Drill float bag holes as per Dwg D3391 using DT8798(Do not open tow cap holes to finish size)
(ONLY DRILL HOLES MARKED "A")

2-Drill Remaining two holes for tow cap using DT 8819 Locating off of .1875" holes drilled in previous step

3-Open tow cap holes to .208" as per Dwg D3391

4-Open Tow Ring hole to .640" as per Dwg D3391

5- open float bag holes 0.328" and counter sink as per dwg D3391

6-Deburr & Scribe Batch number Inside aft end.

7-Transfer drill D3391-021 with D3391-023

190

QC5- Inspect part completeness to step on W/O

0.00

190

QC

Quality Control

0.00

11-11-22

11-11-30

11-11-01

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector	
			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

NOTE: Date & initial all entries

Work Order ID 75937

75937

Page 5

November-01-11 4:16:52 PM

Item ID: D3391-021

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Fwd Tube Assembly

Stop

NS2

Start Date: 01/11/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

200

Chemical Conversion Coat per QSI005 4.1

0.00

DL 11/12/01

200

HandFinish

Memo

0.00

Hand Finishing

210

QC3- Inspect Part Finish

0.00

210

QC

Memo

0.00

Quality Control

220

Skidtubes

0.00

220

Skidtubes

Memo

0.00

Skidtubes

1-instal spacers as per dwg D3391
A/R Magnabond 6398 batch: 117070
exp. date: 02/12
cure time 12hrs. as per QSI015
2-grind crossbolt flush
3-back drill crossbolt if necessary

M 11 12 01 01

Dh
11/12/01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 75937

75937

November-01-11 4:16:52 PM

Page 6

Item ID: D3391-021

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Fwd Tube Assembly

Stop

NS2

Start Date: 01/11/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

230

QC5- Inspect part completeness to step on W/O

230

QC

Quality Control

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

235

Pressure Wash per QSI005 4.3

0.00

235

HandFinish

Hand Finishing

Memo

0.00

AND REALODINE AS PER PAR09-043

240

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

240

Powdercoat

Powder Coating

Memo

11:40 0.00
START TIME: 320 °F
OVEN TEMPERATURE:
FINISH TIME: 12:10

W118434

M 11-12-02 0

1x8m-fu/12/05

1x8m-fu/12/05

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 75937

November-01-11 4:16:52 PM

75937

Page 7

Item ID: D3391-021

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Fwd Tube Assembly

Stop

NS2

Start Date: 01/11/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

250

QC3- Inspect Part Finish

0.00

250

QC

Memo

0.00

Quality Control

1 6 11/12/05

255

Skidtubes

0.00

255

Skidtubes

Memo

0.00

Skidtubes

**** install D3591-1 spacer as per DSI9364 and wearplate and gasket as per DWG ****

1 6 11/12/05

257

QC5- Inspect part completeness to step on W/O

0.00

257

QC

Memo

0.00

Quality Control

Su12b7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 75937

75937

Page 8

November-01-11 4:16:52 PM

Item ID: D3391-021

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Fwd Tube Assembly

Stop

NS2

Start Date: 01/11/2011 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/11/2011 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run

Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

260

Identify as per dwg & Stock Location: w10

260

Packaging

Packaging

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

0.00 0-112-742-043 / B76348

1

0

M/11/2011

280

QC21- Final Inspection - Work Order Release

0.00

280

QC

Quality Control

Memo

0.00

M/12/2011

MF
11-12-07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

November-01-11 4:16:56 PM

Page 1

Work Order ID: 75937

75937

Parent Item: D3391-021

D3391-021

Parent Item Name: Fwd Tube Assembly

Start Date: 01/11/2011

Required Date: 15/11/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP A05.09.13New issue KJ/JLM

IPP B06.02.10Dwg rev.D ecn 773 EC

IPP C06.05.02Added inspections EC

IPP D 07.03.13 rev F dwg EC

IPP E 07.11.07 revG dwg ecn1053P EC verified by: DD

IPP Rev:f ECN 1056 07-11-12 DD verified by: EC

IPP Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC

IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC

IPP Rev J 09.02.02 added hardware EC verified by: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D6013-047		Manufactured	No		100	Each	8.0000	1	1	**		DP 11-11-15
-----------	--	--------------	----	--	-----	------	--------	---	---	----	--	-------------

D6013-047

Skidtube Material

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	8	
	8	

D3670-4-200		Manufactured	No	LG	220	Each	128.0000	4	4	**		Jh 11/12/01
-------------	--	--------------	----	----	-----	------	----------	---	---	----	--	-------------

D3670-4-200

SPACER

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	36	
71850	36	
LG001	92	
	92	

D3401-041		Manufactured	No	LG	255	Each	2.0000	1	1	**		1371878 Jh 11/12/01 (x1)
-----------	--	--------------	----	----	-----	------	--------	---	---	----	--	--------------------------

D3401-041

Tow Cap Assembly

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP007	2	
71352	2	

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector	
			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

NOTE: Date & initial all entries

Picklist Print

Page 2

November-01-11 4:16:56 PM

Work Order ID: 75937

75937

Parent Item: D3391-021

D3391-021

Parent Item Name: Fwd Tube Assembly

Start Date: 01/11/2011

Required Date: 15/11/2011

Start Qty: 1.00

Required Qty: 1.00

D3564-13

Manufactured No

255

Each

20.0000

1

1

**

B76220 (x1) del ul2loc

D3564-13

Wearshoe

D4095-051

UP 11.12.06

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	19	
72850	1	
73323	18	
FP017	1	
71594	1	

D3566-13

Manufactured No

255

Each

34.0000

1

1

**

NIA

D3566-13

Gasket

UP 11.12.06

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	29	
73322	29	
FP014	5	
68341	1	
72149	4	

AN960C10L

NAS1149C0332
R

Purchased

No

255

Each

0.0000

10

10

**

M1119736 (x1) del ul2loc

AN960C10L

washer

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 3

November-01-11 4:16:56 PM

Work Order ID: 75937

75937

Parent Item: D3391-021

D3391-021

Parent Item Name: Fwd Tube Assembly

Start Date: 01/11/2011

Required Date: 15/11/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C4A	Purchased	No	255	Each	2,389.000	10	10	**	ML u12106
--------	-----------	----	-----	------	-----------	----	----	----	-----------

AN3C4A

BOLT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST350	2389	
117313	2	
117688	5	
117872	22	
118112	16	
118451	2	
118706	364	
118838	978	
<u>119328</u>	1000	V10

D3672-1	Manufactured	No	255	Each	696.0000	4	4	**	ML u12104
---------	--------------	----	-----	------	----------	---	---	----	-----------

D3672-1

Phenolic Washer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP-A	432	
52505	0	
<u>66821</u>	432	
ST074	264	X4
72229	264	

AELS-1032-130	Purchased	No	255	Each	0.0000	2	2	**	M1119530 (x2) ML u12106
---------------	-----------	----	-----	------	--------	---	---	----	-------------------------

AFI S-1032-130

INSERT

AELS-1032-225

AELS-1032-225	Purchased	No	255	Each	0.0000	10	10	**	M1118966(x10) ML u12105
---------------	-----------	----	-----	------	--------	----	----	----	-------------------------

AFI S-1032-225

INSERT

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	75937
Description: <u>Float tube Assy.</u>	Part Number:	3391-021
Inspection Dwg: <u>3391</u> Rev: <u>I</u>		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Measured by:	<u>SL Tom</u>	Audited by:	<u>SL</u>	Preliminary Approval:	
Date:	11/11/18	Date:	11-11-22	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

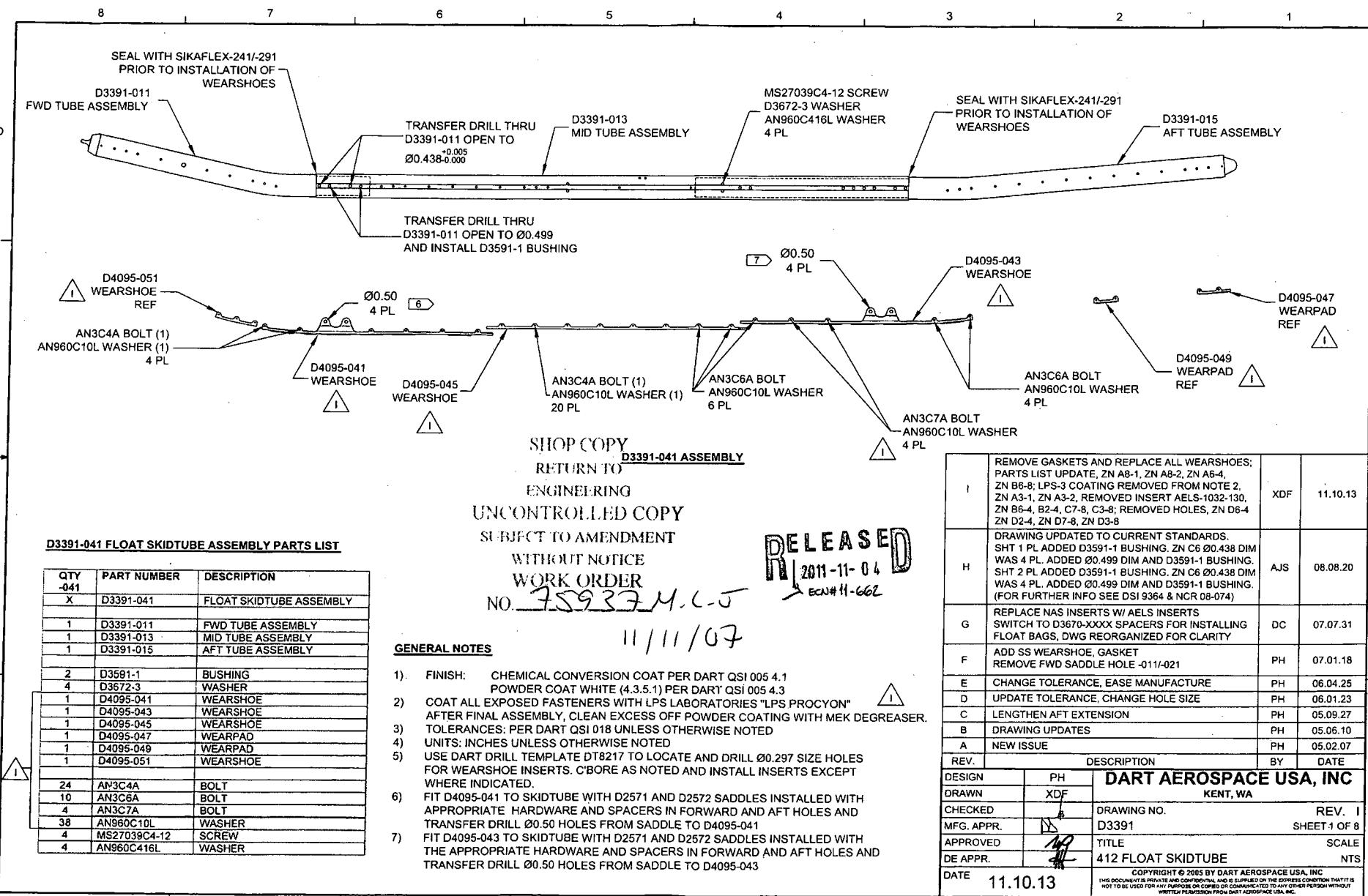
10.04.15

१.५२०
२.५२०
३.५२०
४.५२०
५.५२०
६.५२०
७.५२०

१.५१०
२.५१०
३.५१०
४.५१०
५.५१०
६.५१०
७.५१०

३२८।
३२९
३३०

३२८।-१८।



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

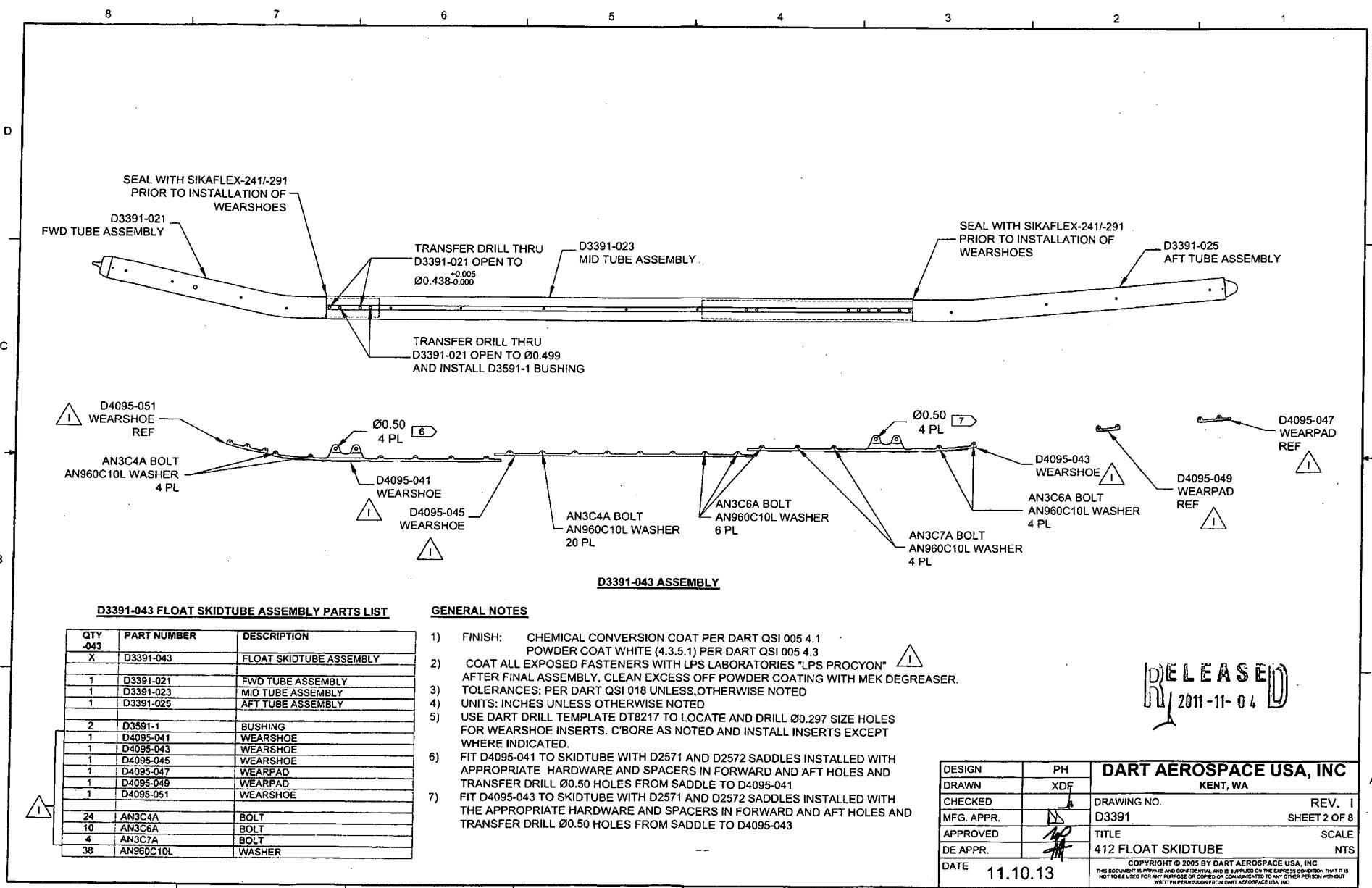
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

75937



D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

GENERAL NOTES

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
 - 2) COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø.0297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.
 - 6) FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø.050 HOLES FROM SADDLE TO D4095-041
 - 7) FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø.050 HOLES FROM SADDLE TO D4095-043

RELEASED
2011-11-04

DESIGN	PH	DART AEROSPACE USA, INC		
DRAWN	XDF	KENT, WA		
CHECKED	<i>b</i>	DRAWING NO.	REV. I	
MFG. APPR.	<i>DS</i>	D3391	SHEET 2 OF 8	
APPROVED	<i>MP</i>	TITLE	SCALE	
DE APPR.	<i>TH</i>	412 FLOAT SKIDTUBE	NTS	
DATE 11.10.13				

© COPYRIGHT © 2005 BY DART AEROSPACE USA, INC
THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. IT IS AGREED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
THE WRITTEN CONSENT OF DART AEROSPACE USA, INC.

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

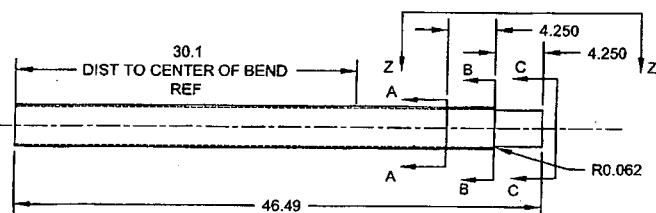
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

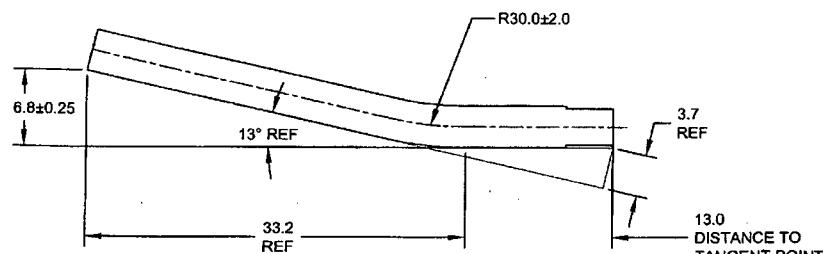
75937

8 7 6 5 4 3 2 1

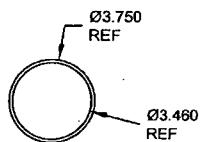
D D
C C
B B
A A



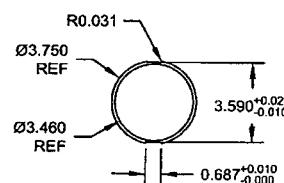
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



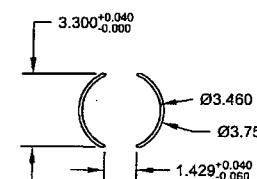
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



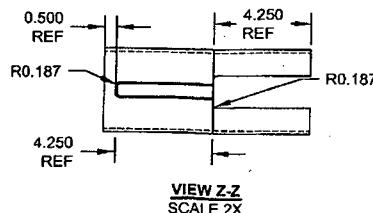
SECTION A-A
SCALE 2X



SECTION B-B
SCALE 2X



SECTION C-C
SCALE 2X



VIEW Z-Z
SCALE 2X

RELEASED
2011-11-04

8 7 6 5 4 3 2 1

DESIGN	PH	DART AEROSPACE USA, INC
DRAWN	XDF	KENT, WA
CHECKED	<i>[Signature]</i>	DRAWING NO.
MFG. APPR.	<i>[Signature]</i>	REV. 1
APPROVED	<i>[Signature]</i>	D3391
DE APPR.	<i>[Signature]</i>	SHEET 3 OF 8
DATE	11.10.13	TITLE
		412 FLOAT SKIDTUBE
		NTS

COPYRIGHT © 2013 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

75537

8

7

6

5

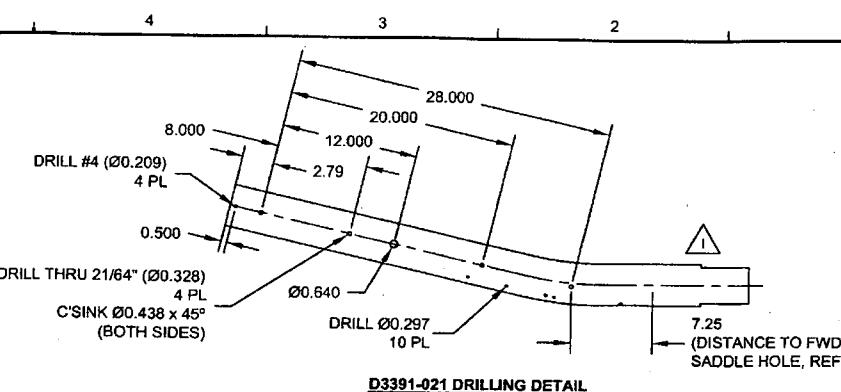
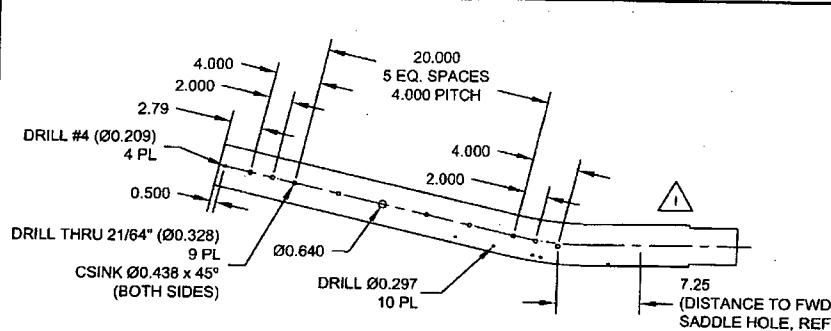
4

3

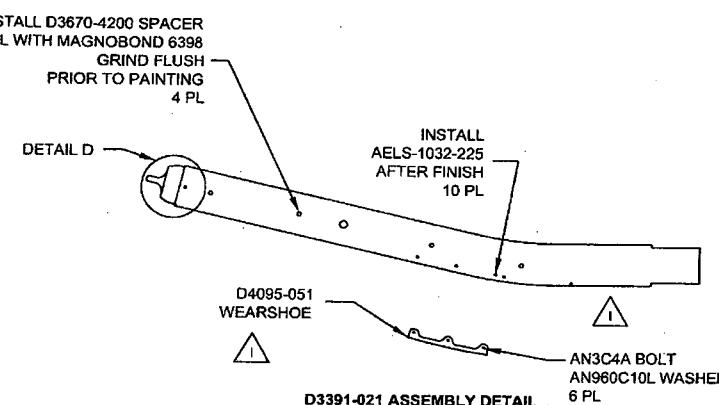
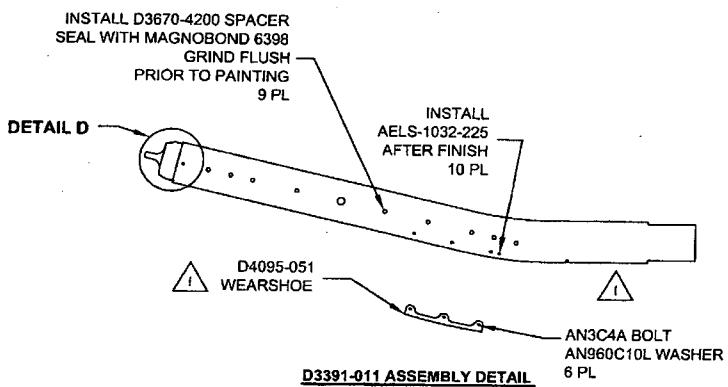
2

1

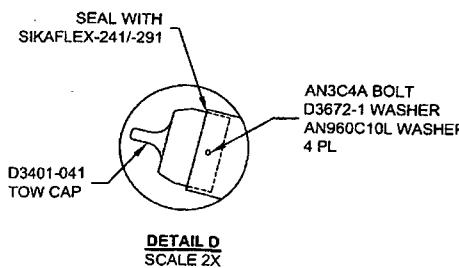
D



C

**D3391-011/021 FWD TUBE ASSEMBLY PARTS LIST**

QTY - 011	QTY - 021	PART NUMBER	DESCRIPTION
X	X	D3391-011	FWD TUBE ASSEMBLY
X	X	D3391-021	FWD TUBE ASSEMBLY
1	1	D3401-041	TOW CAP
9	4	D3670-4200	SPACER
4	4	D3672-1	WASHER
1	1	D4095-051	WEARSHOE
1	1	D6013-047	FWD TUBE
10	10	AN3C4A	BOLT
10	10	AN960C10L	WASHER
10	10	AELS-1032-225	INSERT



DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	XDF	KENT, WA	
CHECKED		DRAWING NO.	REV. 1
MFG. APPR.		D3391	SHEET 4 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	11.10.13		

COPYRIGHT © 2005 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

RELEASED
2011-11-04

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

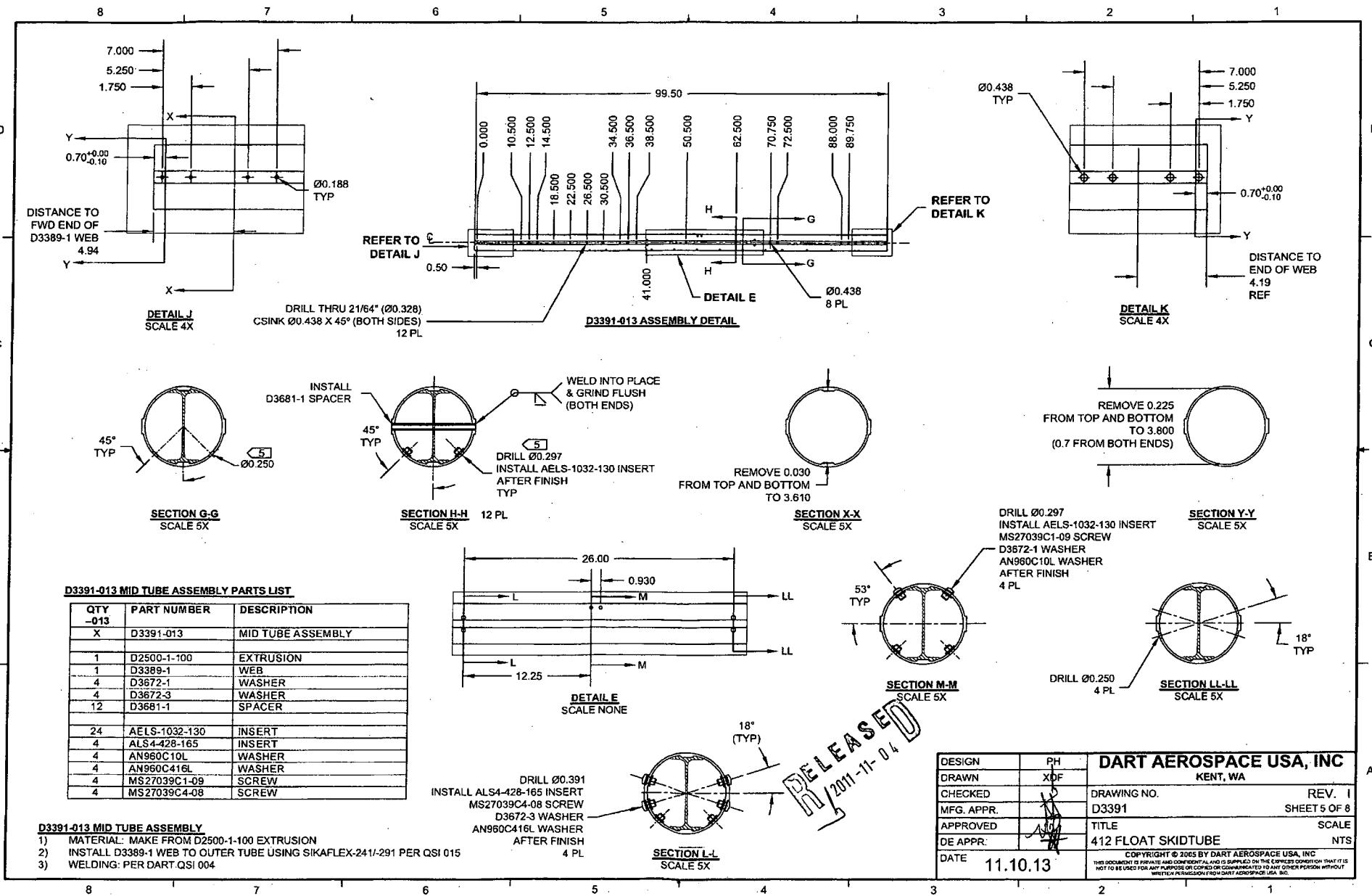
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

75937



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

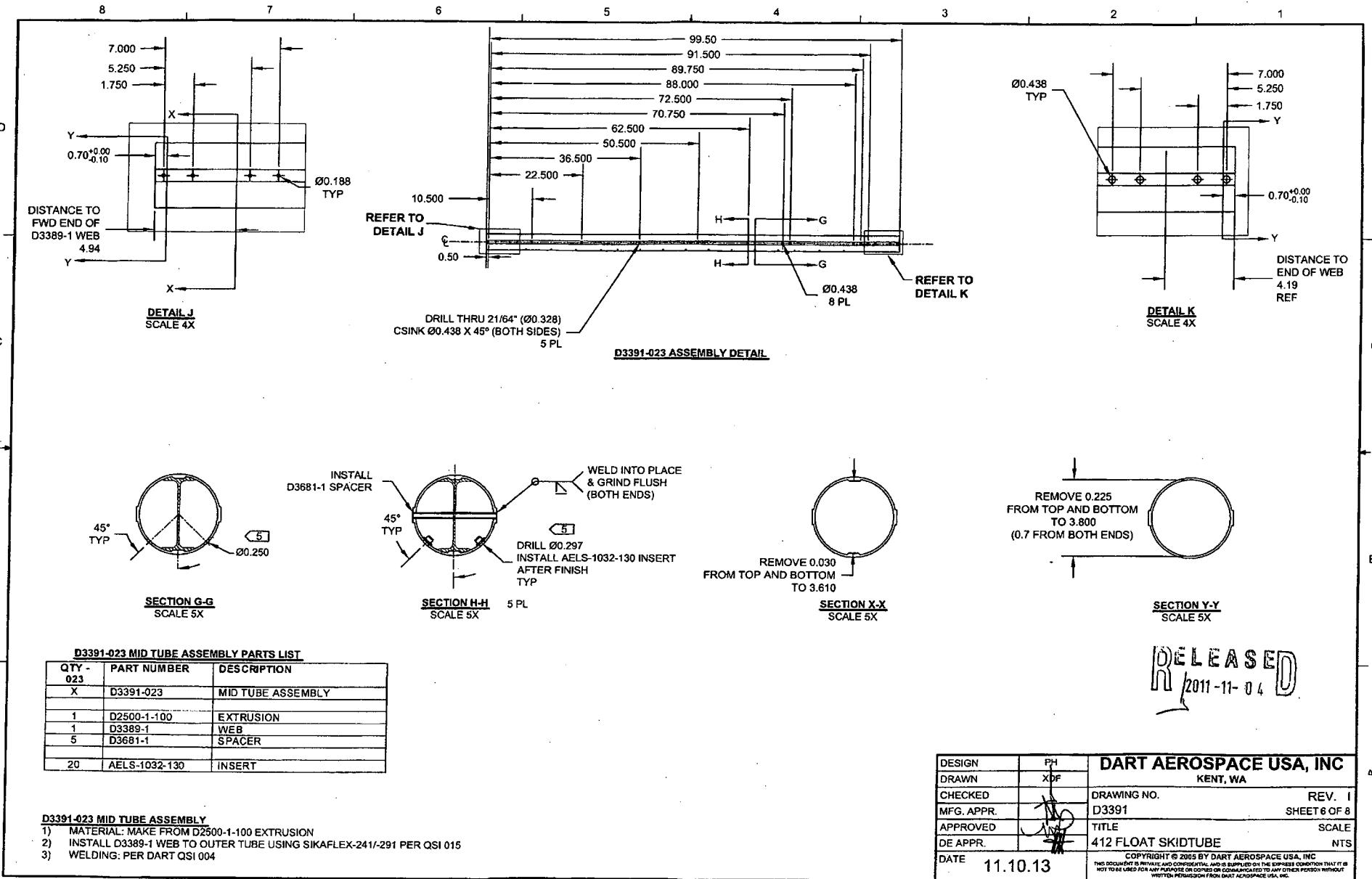
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

75937



RELEASED
2011-11-04

<u>D3391-023 MID TUBE ASSEMBLY PARTS LIST</u>		
QTY - 023	PART NUMBER	DESCRIPTION
X	D3391-023	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
5	D3681-1	SPACER
20	AELS-1032-130	INSERT

D3391-023 MID TUBE ASSEMBLY

- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
 - 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 015
 - 3) WELDING: PER DART QSI 004

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	XDF	KENT, WA	
CHECKED		DRAWING NO.	REV. I
MFG. APPR.	<i>[Signature]</i>	D3391	SHEET 6 OF 8
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	412 FLOAT SKIDTUBE	NTS
DATE	11.10.13		

COPYRIGHT © 2005 BY DART AEROSPACE USA, INC
 THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
 NOT TO BE USED FOR ANY OTHER PURPOSE THAN THE ONE FOR WHICH IT WAS PROVIDED.
 RESTRICTED PERTINENCE FOR DART AEROSPACE USA, INC.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

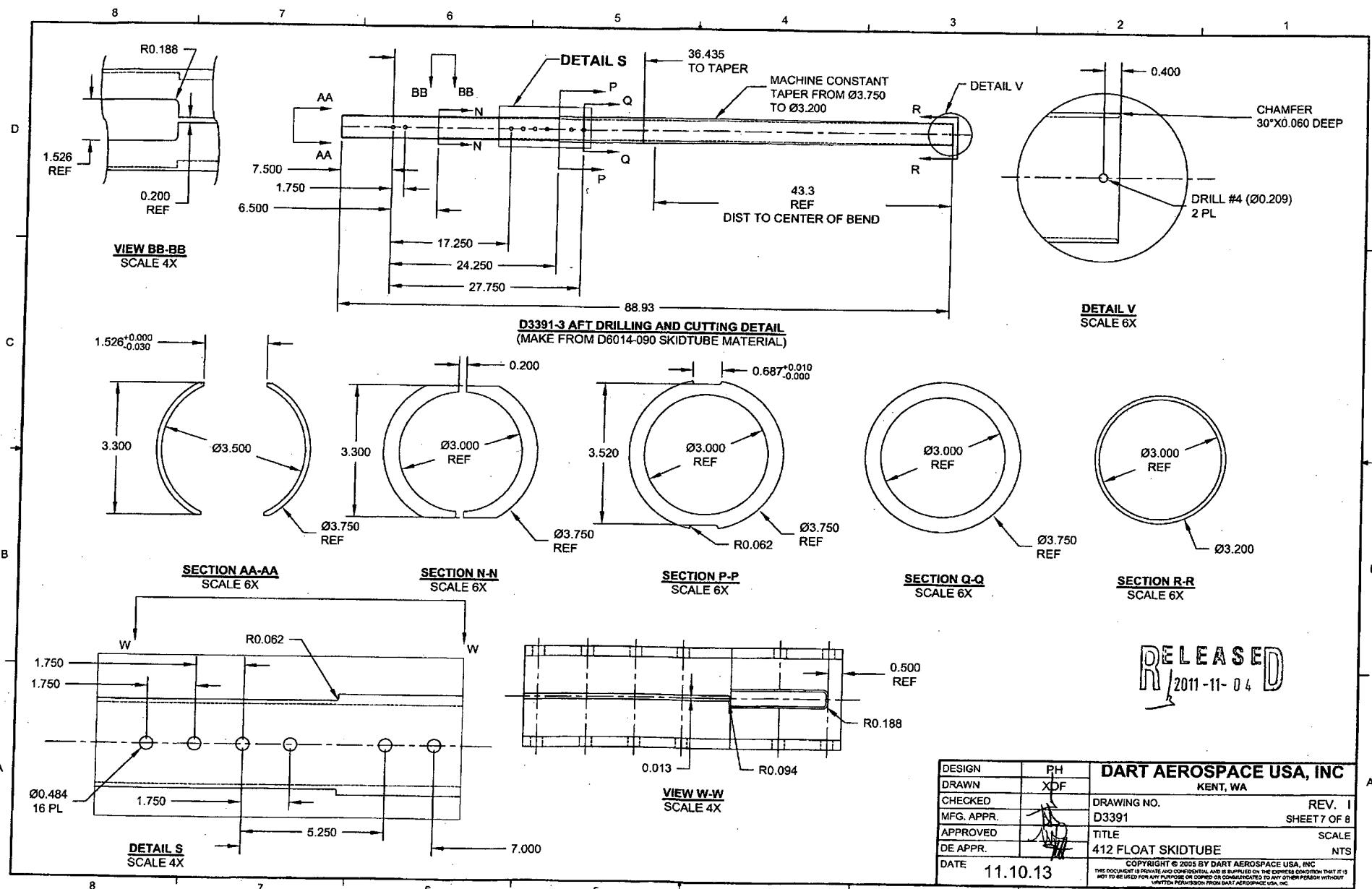
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

75937



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

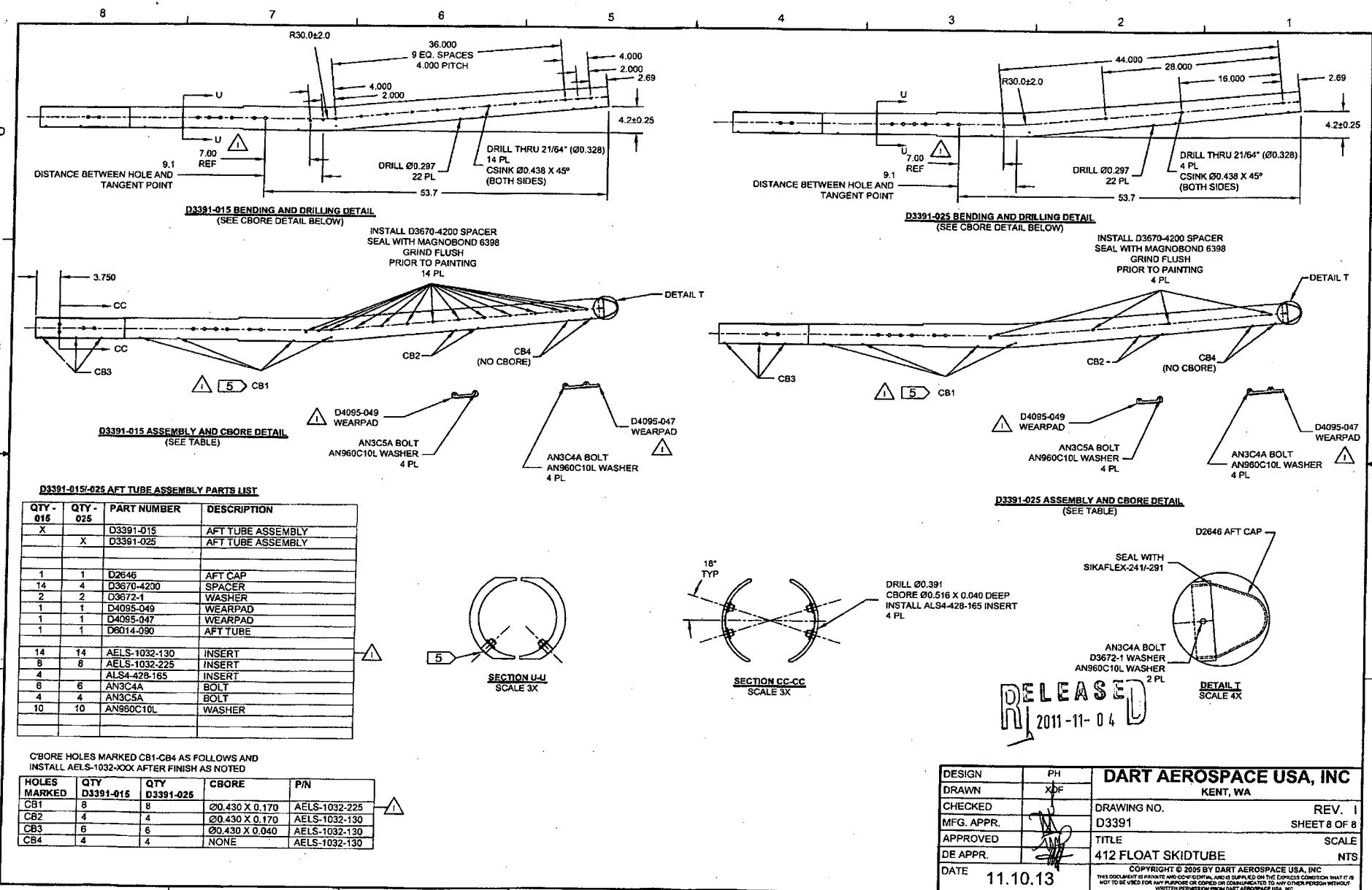
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

75937



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries